

DZHAMUSOVA, T.A.; SHAPIRO, Ye.A.

Heat resistance of muscle tissues in different fresh-water mollusks  
species and populations. Zhur. ob. biol. 21 no.6:447-454 N-D '60.  
(MIRA 14:1)

1. Laboratorii sravnitel'noy tsitologii i fiziologii kletki Instituta  
tsitologii AN SSSR, Leningrad.  
(MOLLUSKS) (HEAT—PHYSIOLOGICAL EFFECT)  
(MUSCLE)

SHAPIRO, Ye.A.

Change in the vital staining of nerve endings during a pessimum.  
TSitologiya 5 no.3:323-326 My-Je '63. (MIRA 17:5)

1. Laboratoriya fiziologii kletki Instituta tsitologii AN SSSR,  
Leningrad.

SHAPIRO, Ye.

PA 78T94

USSR/Radio Receivers, Regenerative  
Radio Receivers, Heterodyne

Mar 1948

"More Regenerative-Type and Cheap Heterodyne Re-  
ceivers," Ye. Shapiro, 1<sup>1</sup>/<sub>2</sub> pp

"Radio" No 3

The war created large backlog of orders for radio  
receivers. Shapiro stresses the need of fulfilling  
these orders as quickly as possible.

ID

78T94

Shapiro, E.A.

USSR/Electronics - Radio communications

Card 1/1 Pub. 133 - 11/23

Authors : Radziyevsky, A. V., and Shapiro, E. A., Engineers

Title : Improving the operation of Kolkhoz radio-centers

Periodical : Vest. svyazi 8, 17-18, Aug 1954

Abstract : The reasons for interruptions in the operation of Kolkhoz radio-centers are analyzed. Breakdowns, making radio-centers inoperative over 30% of their overall service-time, were caused by faulty equipment and parts, interruptions in power supply, and poor servicing. Through the elimination of these defects, as well as through the organization of a training system for radio-service men and mobile repair-shops, the quality of operation of Kolkhoz radio-centers was improved and the time lost through interruptions in their operation cut down. Illustration.

Institution : ...

Submitted : ...

SHAPIRO, Ye.A.

Role of the regional communication offices in making available radio reception in rural areas. Vest.sviazi 15 no.6:26-27 Ja '55. (MLRA 8:7)

1. Nachal'nik otdela razvitiya Upravleniya radiofikatsii i vmutri-rayonnoy elektrosvyazi Ministerstva svyazi SSSR.  
(Radio--Receivers and Reception)

SHAPIRO, Ye.

Eliminate shortcomings in supplying rural areas with radio. Radio  
no.9:21 S'55. (MIRA 8:11)

(Georgia--Radio)

AUTHOR: Medvedev S., and Shapiro, E. (Kazan')

107-9-25/53

TITLE: An Amateur Television System (Lyubitel'skaya televizionnaya sistema)

PERIODICAL: Radio, 1957, # 9, p 35-38 (USSR)

ABSTRACT: A simple TV-system utilizing a photoresistance tube is described in this article. It consists of a small-size transmitting camera containing 4 tubes and of the TV-receiver of "Avan-gard" type (any other industrial TV-receiver can be utilized, too). The signal is transmitted from the camera to the TV-receiver at the video-frequency through a coaxial cable having the length of 20-50 meters. The power supply voltages and the scanning currents are transmitted to the camera from the TV-receiver through the cable. The general view of the system is shown by figure 1.

Further, the article describes in detail the design, the operation and the characteristics of the photoresistance tube of "ЛН-18" type, the video-amplifier, the deflection and the focusing, the suppressing of back-currents, the various modifications of the TV-receiver, the design and assembling of the camera and the tuning of the same. The spectral sensitivity of the photoresistance is about equal to that of the human eye.

Card 1/2

An Amateur Television System

107-10-25/53

The article contains 6 figures, 1 photo and 1 Russian reference.

AVAILABLE: Library of Congress

Card 2/2



~~Radio, Ye.~~

Speed up the introduction of radio facilities in Kazakhstan.  
Vest.sviazi 17 no.6:18-19.78 '58. (MIRA 10:8)

1.Nachal'nik otdela razvitiya UMS Ministerstva svyazi SSSR.  
(Kazakhstan--Radio)

SHAPIRO, Ye.A.

Shortcomings in the establishment of standards for the expenditure of materials in the petroleum industry. Neft. khoz. 38 no.11: 49-53 N '60. (MIRA 14:4)  
(Petroleum industry—Equipment and supplies)

SHAPIRO, YE G.

Gen. Shapir, Ye. G. (1914-1984) was a Soviet  
Union official and a member of the Politburo.  
He was born in the village of Shapir, near  
the town of Shapir, in the Republic of  
Dagestan, Soviet Union.

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Dagestan, Soviet Union.

Gen. 1/1

Cyclic Metal Strength (Cont.)

304/6025

and growth of fatigue cracks, the role of plastic deformation in fatigue fracture, an accelerated method of determining fatigue strength, the plotting of fatigue diagrams, and various fatigue test methods. New data are presented on the sensitivity of high-strength steel to stress concentration, the effect of stress concentration on the criterion of fatigue failure, the effect of the size factor on the strength of metal under cyclic loads, and results of endurance tests of various machine parts. Problems connected with cyclic metal toughness, internal friction, and the effect of corrosion media and temperature on the fatigue strength of metals are also discussed. No personalities are mentioned. Each article is accompanied by references, mostly Soviet.

TABLE OF CONTENTS:

NATURE OF FATIGUE FRACTURE

Oding, I. A. Diffusionless Mechanism of Formation and Growth of a Fatigue Crack  
Card 2/2

3

Cyclic Metal Strength (Cont.)

SOV/6025

Shapiro, Ye. A. Investigation and Calculation of the Endurance  
Limit of Coiled Springs 291

Kerimzade, A. S. New Accelerated Method of Testing the  
Endurance of Metals and Its Application in Establishing a  
Rational Way of Strengthening Deep-Pump Rods 300

Zil'berg, Yu. Ya. Fatigue Failure of the Aluminum  
Antifriction Layer of Bimetallic Bushings in Diesel Engines 318

Baranova, N. B. On the Service Life of a Thin-Wall Cast Part  
Under Cyclic Load 323

Papshev, D. D. Increasing the Fatigue Strength of Machine  
Parts by Strengthening Their Surface Layer With Ball  
Burnishing 331

AVAILABLE: Library of Congress

SUBJECT: Metals and Metallurgy  
Card 9/9

DV/wrc/lde  
8/13/62

SHAPIRO, Ye.A.

Economy of fuel consumption in petroleum refineries. Khim.i  
tekhn. topl. i masel 7 no. 8:48-52 Ag '62. (MIRA 15:8)

1. Tsentral'nyy nauchno-issledovatel'skiy ekonomicheskii institut  
Gosplana RSFSR.  
(Petroleum refineries) (Fuel)

SHAPIRO, Ye. A.

"Study of the Adsorptive Properties of Nerve Endings with the Development of the Pessimum in the Nerve-Muscle Preparation." pp. 85

Institute of Cytology AS USSR Laboratory of Cell Physiology

II Nauchnaya Konferentsiya Institutologii AN SSSR. Tezisy Dokladov (Second Scientific Conference of the Institute of Cytology of the Academy of Sciences USSR, Abstracts of Reports), Leningrad, 1962, 88 pp.

JPRS 20,634

S/124/63/000/002/040/052  
D234/D308

AUTHOR: Shapiro, Ye.A.

TITLE: Investigation and calculation of limited fatigue strength in helical springs

PERIODICAL: Referativnyy zhurnal, Mekhanika, no. 2, 1963, 60, abstract 2V492 (In collection: Tsiklich. prochnost' metallov. M., AN SSSR, 1962, 291-299)

TEXT: The author considers the limits of limited fatigue strength in highly stressed steel wire springs of small diameter, used without thermal treatment after surfacing and strengthened during initial plastic deformation. On the basis of experimental data, relating to wire strength, geometrical relations of the springs and the coefficient of asymmetry, the author proposes an empirical formula for the maximum limited fatigue strength which decreases with increasing cyclic durability of the springs. Data on accumulation of residual deformation in highly stressed springs with increasing durability are given. It is pointed out that, after the first frac-

Card 1/2



Investigation and calculation ...

S/124/63/000/002/040/052  
D234/D308

ture, with only a small additional number of cycles, new cracks  
will form.

[ Abstracter's note: Complete translation ]

Card 2/2

CHAIKOV, Y. A.

Economic significance of specific capital in chemical and  
refining. Nefti, Khim., 41 no. 10 p. 51-52 (1966) (MIRA 1967)

SHAPIRO, Ye.A., inzh.

Potential means for lowering the expenditure of fuel in the  
petroleum refining industry. Prom. energ. 18 no.5:2-6 My '63.  
(MIRA 16:6)

(Fuel) (Petroleum industry)

MITROFANOV, A.I., kand. ekon. nauk; TIKIDZHIYEV, R.N., kand.  
ekon. nauk; BEREKOVA, L.I.; SLABCHENKO, S.K.; SHAPIRO,  
Ye.A.; KORZUN, P.P., kand. ekon. nauk; KHAVKIN, S.N.,  
kand. ekon. nauk; REZCHIKOV, A.I.; KONIKOV, L.A., red.;  
GERASIMOVA, Ye.S., tekhn. red.

[Determining specific capital investments in industry]  
Opredelenie udel'nykh kapital'nykh vlozhenii v promysh-  
lennosti. Moskva, Ekonomizdat, 1963. 215 p.

(MIRA 17:1)

1. Tsentral'nyy nauchno-issledovatel'skiy ekonomicheskii  
institut.

(Capital investments)

SHAPIRO, Ye.A., inzh.

Shortcomings in the planning and evaluation of the economy of  
fuel in petroleum refining plants. Prom. energ. 18 no.11:4-6  
N '63. (MIRA 16:12)

SPAIN, Y. M. [unclear] [unclear], [unclear], [unclear].

[Patterns of the components of electrical machines and  
apparatus] [unclear] [unclear] [unclear] [unclear] [unclear] [unclear]  
apparatus. Moscow, Energiya, 1964. 63 p.

(SIAA 1964)

SHAPINO, Ye.A.

Examination of substantial changes in the state of pessimum.  
Herr. sist. no.4:18-22 '63 (MIRA 18:1)

L. Institut tsitologii AN SSSR, Leningrad.

SHAPIRO, Ye.A.

Determination of the economic effectiveness of capital investments  
in petroleum refining. Neftseper. i neftekhim. no.5:21-26 '63.  
(MIRA 17:8)

1. Tsentral'nyy ekonomicheskii nauchno-issledovatel'skiy institut.



SHAPIRO, Ye.A.

Fixed assets and their use in the petroleum refining industry.  
Khim. i tekhn. topl. i masel 9 no.11:46-53 N '64 (MIRA 18:1)

1. Tsentral'nyy nauchno-issledovatel'skiy ekonomicheskii institut  
pri Gosplane RSFSR.

SHAPIRO, Ye.A.

Study of the mechanical response of a muscle during the pessimum  
caused by excitations of various frequency. TSitologiya 7 no.2;  
166-172 Mr-Apr '65. (MIRA 18:7)

1. Laboratoriya fiziologii kletki Instituta tsitologii AN SSSR,  
Leningrad.

SHAPIRO, S. L., Tech.

Standardization of the expenditure of fuel and thermal energy in  
petroleum refineries. Atom. energ. 20 no.3:2-6 Mr '65.

(MIRA 18:6)

SHAPIRO, Ye. A.

Study of substantial changes during the pessimum. TSitologiya  
7 no. 4: 500-510 Ji-Ag '65. (MIRA 18:9)

1. Laboratoriya fiziologii kletki Instituta tsitologii AN SSSR,  
Leningrad.

ACC NR: AP7004801

(A)

SOURCE CODE: UR/0413/67/000/001/0141/0142.

INVENTOR: Shapiro, Ye. M.; Vaynshteyn, L. A.

ORG: None

TITLE: .Hydraulic power steering drive for a transportation vehicle with hinge-jointed frame. Class 63, No. 190225

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki, no. 1, 1967, 141-142

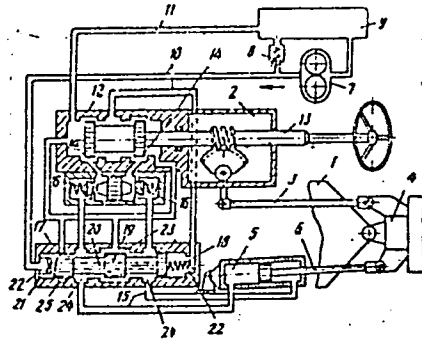
TOPIC TAGS: hydraulic equipment, mechanical power transmission device, drive train

ABSTRACT: This Author's Certificate introduces: 1. A hydraulic power steering drive for a transportation vehicle with hinge-jointed frame. The unit contains a steering mechanism mounted on one of the half-sections of the frame and connected by a tie rod to the other half-section. The installation also incorporates an actuating cylinder with rod and casing hinged to the frame members, a motor-driven pump, safety valve, reservoir, delivery and overflow lines and slide-valve distributor connected to the steering column. The working chambers of the distributor are connected by pipelines through shut-off valves to the cavities of the actuating cylinder. In order to provide direct control in turning the vehicle when the pump is inoperative, the hydraulic drive is equipped with a by-pass valve made in the form of a housing which holds a

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UDC: 629.113.014.52-522.5

ACC NR: AP7004801



1--forward member of the frame; 2--steering mechanism; 3--tie rod; 4--rear section of the frame; 5--actuating cylinder; 6--actuating cylinder rod; 7--pump; 8--safety valve; 9--reservoir; 10--delivery line; 11--overflow line; 12--slide-valve distributor; 13--steering column; 14--working cavities of the slide-valve distributor; 15--pipe-lines; 16--shut-off valves; 17--by-pass valve; 18--spring; 19--three-zone slide-valve; 20--axial opening; 21--choke; 22--end cavities of the by-pass valve; 23--central channel of the by-pass valve; 24--end channels of the by-pass valve; 25--channel connected to the overflow

Card 2/3

ACC NR: AP7004801

three-zone slide valve spring-loaded at one end. In this slide valve is an axial opening with a choke which joins the terminal cavities connected in the delivery line upstream from the slide-valve distributor. The housing for the by-pass valve is made with three channels: the central channel is connected to the overflow and the end channels are connected to the pipelines between the shut-off valves and the cavities in the actuating cylinder. 2. A modification of this drive with provision for maintaining a constant working fluid pressure. The by-pass valve is made with a channel in the housing connected to the overflow and located on the side of the end cavity which is connected to the pump through the delivery line.

SUB CODE: 13/ SUBM DATE: 06Dec65

Card 3/3

CHAPLYGIN, N.M.; SHAPIRO, Ye.M.

The T-46V tractor for cultivating vineyards. Biul.tekh.-ekon.inform.  
no.6:50-51 '60. (MIRA 13:8)  
(Crawler tractor) (Viticulture)



19600

23434  
S/121/61/000/006/011/012  
DO40/D112

AUTHOR: Shapiro, Ye.M.

TITLE: Devices for making active measurements during internal honing

PERIODICAL: Stanki i instrument, no.6, 1961, 39-40

TEXT: These devices, which also switch off the machine when the given diameter has been reached, were developed at the Stankostroitel'nyy zavod im. Lenina (Machine Tool Plant im. Lenin) in Sterlitamak. The first (Fig.1) has two supporting feelers (2) and one work feeler (4). The two supporting feelers can only swing about their axles (3); the work feeler can both swing about its axle and move (together with the axle) in a groove (5) and exerts pressure on an air valve plug (6). The plug is shifted only when the bore diameter changes in the process of honing. The system of feelers floats in the honing head, and a spring (7) presses the feelers to the bore walls with a force of  $2^{+0.5}$  kgf. The feelers are thin plates with 3 diamond crystals soldered into each. Diamond powder can also be used. The feeler work edge must be twice wider than the holes or grooves in the bore being honed, in order to prevent it from slanting and producing a false signal. The device is set to the work diameter by means of a split spring bushing (1) and a tapered plug (8). The other device (Fig.2) is a modification for bore diameters of 30-60 mm  
Card 1/4

X

23434

S/121/61/000/006/011/012  
D040/D112

X

Devices for making active measurements ....

and bore surface without grooves or holes. A floating base (1) bears three feelers, two of which are supporting (2) and one measuring (3). The measuring one is on a leaf spring (5) attached to a post (4). A valve (6) in the feeler is connected by a pipe (7) to the pneumatic measuring system. A spring (8) presses the feelers to the bore wall. The device is set to the work diameter by means of a tapered threaded plug (9). The ring base (1) for the smallest honing heads is split and can be expanded by a screw (10). The diamond crystals (11) are attached with silver solder whose melting point does not exceed 650°C. The devices can be connected to any pneumatic measuring system. They have been tested with a low-pressure system with a water pressure gage fitted with a photoelectric command system. They proved dependable. The switching accuracy was stable within 10 microns. Abstracter's note: Essentially full translation. There are 2 figures and 4 references: 3 Soviet-bloc and 1 non-Soviet bloc.

Card 2/4

SHAPIRO, Ye.M.

Precision of the hole shapes in hardened bushes subjected  
to honing. Stan. i instr. 36 no. 12:4-7 D '65  
(MIRA 19:1)

HEYFITS, L.A., Kandidat khimicheskikh nauk; SIMANOVSKAYA, E.A.; BELOV, V.A.  
professor; IVANOV, E.V.; SHAPIRO, Ye.S., inzhener; BRAYNES, M.Ya.,  
inzhener.

Industrial method for obtaining "santalidol." Masl.-zhir.prom.  
23 no.6-35-38 '54. (MLRA 10:7)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteticheskikh  
i natural'nykh khimicheskikh veshchestv (for Heyfits, Simanovskaya  
and Belov). 2. Zhurnal "Novaya zarya" (for Ivanov). 3. Moskovskiy  
sinteticheskiy zavod (for Shapiro and Braynes).  
(Essences and essential oils) (Phenols)

SHAPIRO, Ye.S., inzh.

Automatic temperature regulator. Masl.-zhir. prom. 24 no.3:38-39  
'58. (MIRA 11:4)

1. Moskovskiy sinteticheskii zavod.  
(Temperature regulators) (Oil industries--Equipment and supplies)

KHEYFITS, L.A., kand.khim.nauk; SIMANOVSKAYA, E.A.; PEREGUDOVA, Zh.A.;  
BELOV, V.N.; SHAPIRO, Ye.S., inzh.; KORETSKAYA, P.Z.,  
inzh.

Industrial process for making musteron (isobornyl-2-  
methylcyclohexanone). Masl.-zhir.prom. 25 no.11:30-32  
'59. (MIRA 13:3)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut sinteti-  
cheskikh i natural'nykh dushistykh veshchestv (for  
Kheyfits, Simanovskaya, Peregudova, Belov). 2. Moskovskiy  
sinteticheskii zavod (for Shapiro, Koretskaya).  
(Odorous substances) (Cyclohexanone)

SHAPIRO, Ye.S.

Economic aspect of the methods of recovery of carbon  
disulfide from process gases of the carbon disulfide manu-  
facture. Khim. volok. no.4:63-65 '63. (MIRA 16:8)

VOLKOVA, T.N.; SHEVLYAGINA, Ye.V.; YANKOVSKAYA, S.A.; SHAPIRO, Ye.S.;  
KLIMANOVA, N.A.

Study of the process of esterification in the production of  
"pentol." Trudy VNIISNDV no.6:167-169 '63. (MIRA 17:4)



LEVIT, R.M.; SOROKIN, Ya.Z.; SHAPIRO, Ye.S.

Ways to expand the production of carbon disulfide. Khim.volok.no.5:  
2-8 '64. (MRA 17:10)

1. Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo instituta iskusstvennogo volokna (for Levit, Sorokin). 2. Leningradskiy zavod iskusstvennogo volokna (for Shapiro).

SHAPIRO, Ye.S.

Potentials for reducing the cost of production of carbor  
disulfide. Khim. volok. no.2:65-69 '64. (MIRA 17:5)

1. Leningradskiy filial Vsesoyuznogo nauchno-issledovatel'skogo  
instituta iskusstvennogo volokna.

SHAPIRO, Ye.S.

Determination of the efficient work conditions of equipment.  
Khim. prom. 41 no.10:758-759 O '65. (MIRA 18:11)

SHAPIRO, Y. Ts.

Shapiro, Ye. Ts. and Katsman, Ye. Ye. "Brain hemorrhages in the newborn", in the Collection: Doklady Vsesoboruz, resp. soveshchaniya pediatrov iakusherov-pedokologov (28-30 November 1946), Minsk, 1949, p. 71-78

SO: U-111, 17 July 1953, (Letopis 'Zhurnal 'nykh Statey, No. 20, 1949)



L 23793-66 EWP(e)/EWT(m)/EWP(t) IJP(c) JD/JG/WH

ACC NR: AP6007257

(A)

SOURCE CODE: UR/0363/66/002/002/0336/0342

AUTHOR: Poluboyarinov, D.N.; Shapiro, Ye. Ya.; Bakunov, V.S.; Akopov, F.A.

ORG: Moscow Chemico-technological Institute im. D.I. Mendeleev  
(Moskovskiy khimiko-tekhnologicheskii institut)

54  
53

TITLE: Change in electric conductivity<sup>6</sup> and rate of creep of sintered<sup>3</sup>  
ceramic made of cerium dioxide during its reduction

SOURCE: AN SSSR. Izvestiya. Neorganicheskiye materialy, v. 2, no. 2,  
1966, 336-342

TOPIC TAGS: ceramic material, cerium compound, electric conductivity,  
creep, powder metal sintering

ABSTRACT: The investigation was carried out on samples prepared from cerium dioxide with a content of the base component of 99.7%. The main impurities were oxides of the rare earth elements. The cerium dioxide was ground in a steel mill by the "wet" method for 30 hours with subsequent purification from iron. Samples for determination of the rate of creep were in the form of small beams, and for determination of the electric conductivity in the form of disks. Calcining was done in an oxidizing atmosphere at 1500°C. The electric conductivity was determined in air over the temperature interval from 20 to 1100°C. The

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UDC: 666.3: 537. 315.2

L 23793-66

ACC NR: AP6007257

creep rate was determined in air and in an inert gas medium by measurement of the bending deformation of the sample with loading at four points. The experimental results are shown in a series of curves. It was found that during reduction, the properties of cerium dioxide ceramic change in a regular manner. The activation energy falls from 23 to 10 kcal/mole for electric conductivity, and from 92 to 39 kcal/mole for creep in the reduction of  $\text{CeO}_{2.00}$  to  $\text{CeO}_{1.90}$ . The electric conductivity of  $\text{CeO}_2$  is basically electronic. With reduction of  $\text{CeO}_2$  to  $\text{CeO}_{1.95}$  the mobility of the electrons increases by five orders of magnitude, and with further reduction to  $\text{CeO}_{1.90}$  by another order of magnitude. Creep of stoichiometric  $\text{CeO}_2$  is due to various factors but, according to the degree of reduction, the limiting factor is the process of diffusion voids. The diffusion coefficient for the oxygen ion in the reduction of  $\text{CeO}_{2.00}$  to  $\text{CeO}_{1.90}$  changes by one order of magnitude. Orig. art. has:

7 figures and 1 table.

SUB CODE: 11,13,07/ SUBM DATE: 21Apr65/ ORIG REF: 005/ OTH REF: 006

Card 2/2 6/

DOLGOPOL'SKAYA, M.A.; GUREVICH, Ye.S.; SHAPIRO, Ye.Z.

Effect of a bacterial film on the leaching of poisons from a coat  
of antifouling paint. Trudy SBS 13:309-314 '60. (MIRA 14:3)  
(Paint—Toxicology) (Marine microbiology)  
(Fouling of ship bottoms)



BAGRYANSKIY, K.V., kandidat tekhnicheskikh nauk, dotsent; PROTASOV, N.F.  
inzhener; TYAGUS, V.A., inzhener; SHAPIRO, Yu.A., inzhener.

Automatic building up of the surface of steel rolls with ceramic  
flux. Stal' 16 no.11:994-997 N '56. (MLRA 10:1)

1. Zhdanovskiy metallurgicheskiy institut i zavod "Azovstal'."  
(Rolls (Iron mills)) (Electric welding)

SCV/130-58-8-10/18

AUTHORS: Gorenshteyn, M.M., and Kologrivov, N.P., Candidates of Technical Sciences, Pogorzhel'skiy, V.I., Gudovshchikov, K.S., Shapiro, Yu.A., Engineers

TITLE: An Effective Method of Rolling Roll Surfaces  
(Effektivnyy sposob nakatki valkov)

PERIODICAL: Metallurg, 1958, Nr 8, pp 25 - 27 (USSR)

ABSTRACT: The roughening of roll surfaces is especially advantageous in the first few days of operation but, the author points out, not all methods of roughening are equally effective. The 1150 blooming mill at the "Azovstal'" Works has forged 55 Kh steel rolls which, since 1949, have had 20-30 mm long notches cut on their surface with pneumatic chisels, a zig-zag line also being cut in the first pass (Figure 1). This proved effective only for the first 2-3 shifts. Metallisation was tried in various forms including bead welding, but these were found unsuitable because of crack extensions and excessive vibration. After a study of methods used at the imeni Kirov Works and the Kuznetskiy metallurgicheskiy kombinat (Kuznetsk Metallurgical Kombinat), the "Avostal" Works adopted a special system. In this, a toothed cutter up to

Card1/2

SCV/130-58-8-10/18

An Effective Method of Rolling Roll Surfaces

100 mm wide with a curvature to fit the roll surface is used to form rings which are then cut up by a 6KhVS-steel roller, 50-80 mm wide (Figure 3), to give a surface covered in pyramids 2.5 mm high and 5 x 5 at the base. A complete blooming-mill roll is processed by one man in three hours. Lead prints taken daily have shown that the pyramids wear slowly and crazing is delayed and orientated along pyramidal bases. The method has been adopted for all reducing stands.  
There are 3 figures.

ASSOCIATION: Zhdanovskiy metallurgicheskiy institut (Zhdanov Metallurgical Institute) and Zavod "Azovstal'" ("Azovstal'" Works)

Card 2/2      1. Rolling mills--Performance      2. Rolling mills--Equipment

S/170/61/004/006/009/015  
3129/B212

AUTHOR: Shapiro, Yu. A.

TITLE: Certain boundary problems for a hollow cylinder of finite length

PERIODICAL: Inzhenerno-fizicheskiy zhurnal, v. 4, no. 6, 1961, 101-105

TEXT: A new method is represented for the exact solution of a Laplace equation for the case of a given boundary function on the lateral surface of a circular cylinder of finite length. This function is assumed to be symmetrical with respect to the cylinder axis and antisymmetrical with respect to a plane perpendicular to this axis and passing through the center of the cylinder. The boundary conditions are:  $U_1(r_0, z) = U_2(r_0, z)$ ; ✓

$U_1(r_0, z) \big|_{z=a} = V(z); \quad U_1/r \big|_{r=r_0-0} = U_2/r \big|_{r=r_0+0} \quad \text{The following}$   
 $a < z \quad a < |z|$

expressions hold:  $U_1(r, -z) = -U_1(r, z). \quad U_2(r, -z) = -U_2(r, z).$  The

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↓

Certain boundary problems...

S/170/61/004/006/009/015  
B129/B212

solutions for the diagram shown in Fig. 1 are:

$$\begin{aligned} U_1(r, z) &= \int_0^{\infty} A(\lambda) \frac{I_0(\lambda r)}{I_0(\lambda r_0)} \sin \lambda z d\lambda, \\ U_2(r, z) &= \int_0^{\infty} A(\lambda) \frac{K_0(\lambda r)}{K_0(\lambda r_0)} \sin \lambda z d\lambda. \end{aligned} \quad (2)$$

The integral

$$A(\lambda) = 2r_0 \lambda I_0(\lambda r_0) K_0(\lambda r_0) \int_0^a \varphi(t) J_0(\lambda t) dt, \quad (5)$$

is derived for  $A(\lambda)$ , where  $\varphi(t)$  is a continuous function in the interval  $0 \leq t \leq a$ . The author is able to reduce the problem to the solution of a Fredholm integral equation of the second type

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Certain boundary problems...

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$$\varphi(x) - \int_0^a \varphi(t) G(t, x) dt = f(x), \quad (15)$$

with a continuous kernel

$$x \int_0^{\infty} g(\lambda) J_0(\lambda t) J_0(\lambda x) \lambda d\lambda = G(t, x). \quad (14)$$

Finally, the calculation of the electrostatic and magnetostatic potential (Fig. 1) is given. The author shows how to find, with the help of the obtained function  $\varphi(x)$ , expressions for the surface density  $\sigma(z)$  of the induced electric or magnetic charges:

$$-\sigma(z) = \frac{1}{4\pi} \left( \frac{\partial U_1}{\partial r} \Big|_{r=r_0-0} - \frac{\partial U_2}{\partial r} \Big|_{r=r_0+0} \right) = \frac{1}{4\pi} \times$$

Card 3/4

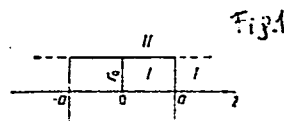
Certain boundary problems...

S/170/61/004/006/009/015  
B129/B212

$$\begin{aligned} \times \int_0^{\infty} A(\lambda) \frac{\sin \lambda z d\lambda}{r_0 J_0(\lambda r_0) K_0(\lambda r_0)} &= \frac{1}{2\pi} \int_0^{\infty} \sin \lambda z \lambda d\lambda \int_0^a \varphi(t) J_0(\lambda t) dt = (A) \\ &= \frac{\varphi(a)}{2\pi a} \frac{z}{\sqrt{a^2 - z^2}} - \frac{z}{2\pi} \int_0^a \left[ \frac{\varphi(t)}{t} \right]' \frac{dt}{\sqrt{t^2 - z^2}}. \end{aligned}$$

The numerical results will be published in a future paper. There are 1 figure and 2 Soviet-bloc references.

SUBMITTED: October 17, 1960



Card 4/4

S/057/62/032/006/008/022  
B108/B102

AUTHOR: Shapiro, Yu. A.

TITLE: The electrostatic field of an immersion electron lens consisting of two semi-bounded cylinders

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 32, no. 6, 1962, 686 - 694

TEXT: An exact calculation is given of the electrostatic field between the base planes of two equal semi-bounded cylinders of radius  $r_0$ . The potential  $V(z)$  along the cylinders is assumed to tend towards a finite value at infinity. The potential between the cylinders is

$u(r, z) = \frac{V_2 - V_1}{2} \phi(r, z) + \frac{V_2 + V_1}{2}$ , where  $V_1$  and  $V_2$  are the potentials of the cylinders and  $\phi(r, z)$  is the continuous solution of the Laplacian

equation with the boundary conditions (1)  $\phi \Big|_{\substack{r=r_0 \\ \pm z > 0}} = \pm 1$ ;

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S/057/62/032/006/008/022  
B108/B102

The electrostatic field ...

(2)  $\frac{\partial \Phi}{\partial z} \Big|_{z=0} = \frac{\partial \Phi}{\partial z} \Big|_{z=0} = 0$ ; (3)  $\Phi \Big|_{r \rightarrow \infty} = 0$ ; (4)  $\Phi \Big|_{z \rightarrow \pm \infty} = \text{finite}$ .

$2a$  is the width of the gap between the cylinders. The function  $\Phi$  has the form

$$\left. \begin{aligned} \Phi(r, z) &= U(r, z) - \int_0^\infty A(\lambda) \frac{I_0(\lambda r)}{I_0(\lambda r_0)} \sin \lambda z d\lambda \quad r \leq r_0, \\ \Phi(r, z) &= U(r, z) - \int_0^\infty A(\lambda) \frac{K_0(\lambda r)}{K_0(\lambda r_0)} \sin \lambda z d\lambda \quad r \geq r_0, \end{aligned} \right\} \quad (3)$$

where  $I_0(x)$  and  $K_0(x)$  are Bessel functions of first and second kind of a purely imaginary argument. The function  $U$  is easy to find so that the problem consists in seeking the unknown function  $A(\lambda)$ . It is shown that the spatial distribution of the potential can be expressed in terms of an auxiliary function which is the solution of a one-dimensional second order integral equation with a continuous kernel. A way of calculating the kernel and of solving this integral equation is shown. There are 1 figure and 2 tables.

Card 2/3

The electrostatic field ...

S/057/62/032/006/008/022  
B108/B102

SUBMITTED: July 24, 1961

Card 3/3

TYUTIKOV, A.M.; SHAPIRO, Yu.A.

Distortions in the delay curves for three-electrode analyzers  
caused by the grids. Zhur. tekhn. fiz. 33 no.10:1265-1273 0 '63.  
(MIRA 16:11)

L 10737-65 EWT(1)/EPA(w)-2/EEC(t)/EEC(b)-2/EWA(m)-2 Fab-24 ESD(gs)/BSD/  
RAEM(a)/AFETR/AFWL/ESD(t)/ESD(dp)/AS(mp)-2/ASD(a)-5/SSD

S/0057/64/034/010/1747/1751

ACCESSION NR: AP4046332

AUTHOR: Shapiro, Yu.A.

TITLE: A direct method for designing electromagnetic lenses B

SOURCE: Zhurnal tekhnicheskoy fiziki, v.34, no.10, 1964, 1747-1751

TOPIC TAGS: electron optics, electromagnetic lens, applied mathematics

ABSTRACT: A method is described for calculating the axial values of the electric and magnetic fields required in order to produce an axially symmetric electromagnetic lens with specified properties. The method consists in expanding the axial values of the electrostatic potential and the magnetic field in suitable complete sets of functions, neglecting all but a finite number of terms, and so determining the remaining expansion coefficients that the required conditions are satisfied as nearly as possible. To determine the expansion coefficients, each required condition is expressed as the vanishing of a certain function of the coefficients, and the sum of the squares of these functions (with suitable weighting factors) is minimized. Any suitable minimizing procedure can be employed; that described by I.M.Gel'fand and M.A.Tseytlin (DAN SSSR 137,2,283,1961) is recommended. The minimization would

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ACCESSION NR: AP4046332

normally be performed with the aid of an electronic computer. Many of the conditions one would wish to impose on an electromagnetic lens are expressed most simply in terms of the two independent solutions of the paraxial trajectory equation. In order to deal with these conditions, one of the solutions of the paraxial equation is expanded in a series of suitable functions, the other solution is expressed in terms of the same expansion coefficients by integrating the Wronskian, and the condition that the paraxial trajectory equation be satisfied is included among those that are imposed on the system. Among the conditions that one might wish to impose on an electromagnetic lens, the following are discussed briefly: that the location of the image plane, the magnification, and the angular rotation of the image have preassigned values; that the magnetic field have an extremum at the cathode; and that various third order aberrations vanish. Some of these conditions are expressed by linear equations; these are not included in the function to be minimized, but are rather employed to eliminate some of the expansion coefficients. A specific lens was designed and the results compared with the design values. Power functions were employed for the expansions; seven terms were retained in the expansion of the field, and four in that of the solution of the paraxial trajectory equation. The location of the Gauss plane and the magnification were found to be within 2% of the target values. The calculation was performed twice, once with and once without the

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ACCESSION NR: AP4046332

condition that distortion be minimum. The distortion in the first case was less than that in the second by a factor three. Orig.art.has: 19 formulas.

ASSOCIATION: none

SUBMITTED: 16Dec63

ENCL: 00

SUB CODE: OP

NR REF SOV: 004

OTHER: 001

3/3

PAVLOVSKIY, V.Ya.; TSILEVICH, I.Z.; FRADIN, M.D.; KUISHTA-POVICH, P.D.;  
SHAPIRO, Yu.A.; GRIGOR'YEVA, M.G.; RATNOVINA, Ye.T.; KRETOVA, G.V.

Rolling mill rolls of hypereutectoid chromium-vanadium 90 KhF steel.  
Metallurg 10 no.7:40 J1 '65. (MIRA 18:7)

1. Metallurgicheskiy zavod "Azovstal".

SPIRIDONOV, K.A., inzh.; SHAPIRO, Yu.B., inzh.

Manufacture of steam turbines at the Leningrad Metallurgical Plant.  
Energomashinostroenie 3 no.11:5-11 N '57. (MIRA 10:12)  
(Leningrad--Steam turbines)



SHAPIRO, Yu. G.

USSR / Human and Animal Physiology. Neuromuscular  
Physiology.

T

Abs Jour: Ref Zhur-Biol., No 9, 1958, 41646.

Author : Zefirov, L. N.; Shapiro, Yu. G.

Inst : Not Given.

Title : Tetaniform Single Contractions in a Neuro-Muscular  
Preparation of a Frog Following Pancreatectomy.

Orig Pub: Bul. eksperim. biol. i meditsiny, 1957, 43, No 1,  
23-28.

Abstract: The experiments were performed on a neuro-muscular  
preparation of the gastrocnemius muscle of a frog.  
Tetaniform single contractions (TSC) appeared on  
the 5-9 day after pancreatectomy, within 5-10

Card 1/3

USSR / Human and Animal Physiology. Neuromuscular  
Physiology.

T

Abs: Jour: Ref Zhur-Biol., No 9, 1958, 41646.

Abstract: proved to be less effective. The sequelae of  
panchreatectomy are associated with disturbances  
of acetylcholine formation and are not observed  
when it is replaced by injection. -- F. I. Mumladze.

Card 3/3

SHAPIRO, Yu. L.  
LISOVSKIY, D.I.; BELYAKOV, Yu.P.; SHAPIRO, Yu.L.

Thermal efficiency of shaft furnaces in smelting oxidized nickel  
ores. TSvet.met.29 no.11:52-59 N '56. (MLRA 10:1)

1. Mintsvetmetzologo.  
(Nickel--Metallurgy) (Heat--Transmission)

NIKOLAYEV, Yu.S.; LAPSHIN, V.N.; SHAPIRO, Yu.I.

Some data on the dynamics of the basal metabolism and indices of erythrocytes in schizophrenics during their treatment with controlled starvation. Trudy 1-go MMI 34:162-170 '64.

(MIRA 18:11)

1. Kafedra psikhiiatrii (zav. - Yu.S. Nikolayev) Rostovskogo gosudarstvennogo meditsinskogo instituta i kafedra psikhiiatrii (zav. - kafedroy zasluzhennyy deyatel' nauki prof. V.M. Banskchikov) 1-go Moskovskogo ordena Lenina meditsinskogo instituta imeni Sechenova.

LISOVSKIY, D.I.; VANYUKOV, A.V.; MAIEVSKIY, A.Yu.; SHAPIRO, Yu.I.

Investigating shaft furnace smelting of oxidezed nickel ores by  
freezing the furnace. Izv. vys. ucheb. zav.; tsvet. met. no.2:  
55-70 '58. (MIRA 11:8)

1. Moskovskiy institut tsvetnykh metallov i zolota. Kafedra  
metallurgii tyazhelykh tsvetnykh metallov.  
(Nickel—Metallurgy)

SHAPIRO, Yu.L.

Reticulocytes and the erythrocyte sedimentation reaction during total fasting (without restriction of water) and subsequent alimention in human subjects. Lab.delo 8 no.8:35-40 Ag '62.

(MIRA 15:9)

1. Institut psikhiatrii AMN SSSR, Moskva.  
(BLOOD--SEDIMENTATION) (FASTING) (BLOOD CELLS)

GOFMAN, A.G.; SHAPIRO, Yu.L.

Preliminary data on the functional state of medullary  
hemopoiesis in delirium tremens. Probl.sud.psikh. no.12:  
181-193 '62. (MIRA 16:4)  
(DELIRIUM TREMENS) (HEMOPOIETIC SYSTEM)

SHAPIRO, Ya.L.

Change in the morphological composition of the blood ( and  
some of its physicochemical properties) in the process of  
negative load diet therapy. Terap. arkh. 34 no.10:166-191  
0'62 (MIRA 1724)



SHAPIRO, Yu.L.

Investigation of the morphological composition of the bone marrow and peripheral blood during complete alimentary starvation (without any limitation of drinking water) and subsequent nutrition of an apparently healthy person; an annotation. Probl. gemat. i perel. krovi 8 no.7: 52-59 J1 '63. (MIRA 17:10)

1. Iz gematologicheskoy laboratorii Instituta psikiatrii (dir. N.M. Zharikov) AMN SSSR.

SHAPIRO, Yu.L.: GOFMAN, A.G. (Moskva.

Change in the morphological composition of "white" blood in  
acute alcoholic psychoses. Trudy Gos. nauch.-issl. inst.psikh.  
38:241-248 '63 (MIRA 16:11)

\*

SHAPIRO, Yu.L.; MINSKER, E.I.; ORLOVSKAYA, D.D. (Moskva)

Dynamics of some indices of adrenal cortex function in prolonged complete starvation in man. Pat. fiziol. i eksp. terap.  
7 no.3:70-71 My-Je'63 (MIRA 17:4)

1. Iz Instituta psikhatrii ( dir. - chlen-korrespondent AMN  
SSSR prof. A.V. Snezhnevskiy) AMN SSSR.

SHAPIRO, Yu.L., STERNIN, L.Ye.

Mathematical analysis of the changes in body weight in complete  
alimentary starvation in man. Pat. fiziol. i eksp. terap. 9  
no.2:66-68 Mr-Apr '65. (MIRA 18:5)

1. Nauchno-issledovatel'skiy institut psikhatrii (dir. - prof.  
D.D.Fedotov) Ministerstva zdravookhraneniya RSFSR, Moskva.

L 7957-66 EWT(1)/EWA(h)

ACC NR: AP5025739

SOURCE CODE: UR/0286/65/000/018/0089/0089

AUTHORS: Mebel', D. M.; Pevzner, V. V.; Shapiro, Yu. M.

ORG: none

TITLE: Phase sensitive voltage converter. Class 42, No. 174836

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 18, 1965, 89

TOPIC TAGS: transistorized circuit, voltage regulator 25

ABSTRACT: This Author Certificate presents a phase sensitive voltage converter. An alternating voltage supplied to the input produces both a constant and a rectangular voltage of the same frequency at the output with filtering of the reactive unbalance. The sum of a constant and alternating voltage produces a rectangular voltage at the output free of the reactive component. To simplify the device, the transistor emitters of two semiconductor switches are connected through filtering capacitors to the load and to the signal source. The collectors are connected to the second terminals of the source and load. A reference voltage of opposite phase is supplied to the transistor bases.

SUB CODE: EC/ SUBM DATE: 17Jul63

Card 1/1 OC

UDC: 621.314.5

SHAPIRO, Yu.V.

Use of intratracheal anesthesia with muscle relaxants in severe injury under conditions of emergency surgical treatment. Khirurgiia 39 no.7:121-122 J1'63 (MIRA 16:12)

1. Iz khirurgicheskogo otdeleniya Moskovskoy gorodskoy klinicheskoy bol'nitsy imeni N.E.Baumana (glavnyy vrach - kand. med. nauk N.G.Orlov).

RABINOVICH, Yu.Ya., kand. med. nauk.; SHAPIRO, Yu.V. (Moskva)

Resuscitation after pachycarpine poisoning. Klin. med. 41 no.7:  
140-143 J1'63 (MIRA 16:12)

1. Iz Moskovskoy gorodskoy klinicheskoy bol'nitsy No.29 imeni  
N.E.Baumana (glavnyy vrach - kand. med. nauk N.G.Orlov, glavnyy  
khirurg - kand. med. nauk L.M.Shnaper).

SHAPIRO, Yu. V.

PA 24T30

USSR/Engineering  
Turbines, Steam

Aug 1947

"Two-Bleeder Point Steam Turbine VPT-25-3," Yu. V.  
Shapiro, Engr, 1 p

"Kotloturbostroyeniye" No 4

Announcement of completion of plans on a new two-  
bleeder point turbine, type VPT-25-3 with initial  
steam factors: 90 atm, 480°, nominal power 25,000  
kw.

24T30



SHAPIRO, Yu. V.

Shapiro, Yu. V. and Tortiko, M. A., Engineers. Modernization of SVK-150-1  
and VK-100-2 Turbines page 79

In this article the authors present the basic principles of turbine stage design which were used as a basis for modernizing VK-100-2 and SVK-150-1 turbines. The authors also present the results of an aerodynamic investigation of turbine blade systems. There are five Soviet references.

Steam and Gas Turbine Construction, Moscow Mashgiz, 1957. 351 pp.

SHAPIRO, YU. V.

114-11-2/10

AUTHOR: Spiridonov, K.A., Engineer and Shapiro, Yu.V., Engineer.  
 TITLE: The Manufacture of Steam Turbines at the Leningrad Metal Works. (Paroturbostroyeniye na Leningradskom Metallicheskom Zavode)  
 PERIODICAL: Energomashinostroyeniye, 1957, Vol.3, No.11, pp. 5-11, (USSR)

ABSTRACT: Historical review of the work of the Leningrad Metal Works since the days when it received technical help from Metropolitan-Vickers. The widespread use of high-pressure steam in Soviet power engineering occurred after the late war when the works constructed a series of high-pressure turbines; the 100 MW condensing turbine manufactured in 1946 was the first high-speed single-shaft high-pressure turbine of such an output in the world. The new series of turbines had a number of novel technical features, particularly the use of separate nozzle boxes which are free to expand independently of the cylinder and the widespread use of welding. A number of new ideas and designs were introduced into the governor system.

A great step forward was the manufacture in 1952 of a 150 MW turbine running at 3 000 r.p.m. type CBK-150-1. This turbine which was then the most powerful in Europe is designed for steam conditions of 170 atm. and 550 °C, with reheat to 520 °C. The

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The Manufacture of Steam Turbines at the Leningrad Metal Works.

reliability of two of these turbines in service has confirmed the possibility of increasing the steam temperature to 570-580 °C and the reheat temperature to 530-535 °C in turbines of this type. In solving the problems involved in the manufacture of these turbines the works was assisted by the Scientific Research Institute of Engineering Technology (TsNII TMASH), the Central Boiler Turbine Institute (TsKTI) and the Neva Works imeni Lenin (NZL).

One difficult problem was the design of the high pressure cylinder. A special feature of the design is the combined use of parts of austenitic and pearlitic steels. These cylinders have proved reliable. In the turbine CBK-150-1, the rotors and the alternator are connected by semi-flexible couplings and it was important to determine the critical speeds of the entire system. A detailed study was also made of the natural frequencies and stresses in the blading. When very high steam conditions are used, the high pressure blades are very small and it is difficult to make them very efficient. When the turbine CBK-150-1 was designed only a few aerodynamic investigations of blading had been made but later, in the steam turbine laboratory of the Leningrad Metal Works, a good deal of work was done on the design of nozzles and blading for various stages. The turbine CBK-150-1 is provided with a well-developed regenerative heating system.

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114-11-2/10

# The Manufacture of Steam Turbines at the Leningrad Metal Works.

In the middle of 1955, it was decided to commence the design of turbines for still higher steam conditions and outputs.

In recent years, scientific research institutes and works' laboratories have done a great deal of theoretical and experimental work on turbine blading so that the physics of the subject is now better understood. Aerodynamic investigations and tests on turbines have indicated new design principles which may be summarised as follows: the use of aerodynamically-designed blade profiles with minimum profile and end losses; optimum choice of velocity ratio and reaction to avoid negative reaction at the blade root; reduction of axial gaps; and the use of twisted working blades for D/l ratios of twelve and less. These principles are being applied in the design of the new turbines and in the modernisation of existing ones. In 1955, when the third turbine CBK-150-1 was manufactured the flow part was modernised and the efficiency of the high-pressure cylinder was increased by 5%.

The new series of turbines can be divided into three groups according to the steam conditions: a) 90 atm., 535 °C; b) 130 atm., 565 °C and c) 220 atm, 600 °C. The main characteristics of the new turbines are given in Table 1.

The metallurgical industry is now required to develop pearlitic-Card3/5type heat-resistant steels for operation at temperatures of up to

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The Manufacture of Steam Turbines at the Leningrad Metal Works.

new power stations. The works plan to produce condensing turbines type CBK-200-1 and back-pressure turbines type CBP-50-4 with initial steam conditions of 220 atm. and 600 °C. It is possible that the stop-valve temperature may later be reduced somewhat to avoid the use of austenitic steels. The stop-valve pressure is also not yet finally decided.

In 1957, the design office of the Leningrad Metal Works is designing a turbine of 300 MW with steam conditions of 300 atm. and 650 °C with double reheat to 565 °C.

The development of turbine manufacture over the years is illustrated by the heat consumption figures plotted in Fig.4. The work on the development of the new steam turbines was carried out under the direction of the late chief engineer, Doctor of Technical Sciences, Prof. M.I. Grinberg. In the future, still higher efficiencies will be achieved by the use of higher temperatures and pressures.

There are 4 figures, 2 tables and 1 Slavic reference.

AVAILABLE: Library of Congress

Card 5/5

SOV/112-59-5-8581

8(6)

Translation from: Referativnyy zhurnal. Elektrotekhnika, 1959, Nr 5, p 25 (USSR)

AUTHOR: Shapiro, Yu. V.

TITLE: Selection of the Thermal Layout for Steam-Turbine Plants

PERIODICAL: Tr. Leningr. metallich. z-da, 1957, Nr 5, pp 68-78

ABSTRACT: With the specified number of extractions, the saving due to regeneration in steam-turbine plants grows with an increase in the temperature of regenerative feed-water heating; then, at a certain temperature it reaches a maximum; and then, if the temperature further increases, the saving dwindles. With a larger number of extractions, the maximum saving corresponds to a higher heating temperature. The highest temperature of the regenerative water heating can be determined from this formula:

$$T_{pv} = \sqrt[n-1]{(T_H)^n T_2}$$

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SOV/112-59-5-8581

### Selection of the Thermal Layout for Steam-Turbine Plants

where  $T_{pv}$  is the feed-water heating temperature in  $^{\circ}\text{K}$ ,  $T_{\mu}$  is the steam-saturation temperature in the boiler in  $^{\circ}\text{K}$ ,  $n$  is the number of extractions,  $T_2$  is the condensate temperature in the condenser in  $^{\circ}\text{K}$ . The optimum temperature for calculating a thermal layout is assumed 20-30 $^{\circ}$  lower than that obtained from the formula. With a specified feed-water heating temperature, the incremental saving in the specific heat expenditure gained from the introduction of each reheater gradually decreases with an increase in the number of regenerative extractions. Roughly speaking, an additional reheater can be considered profitable if it can bring about a heat saving of 0.25%. In calculating the thermal layouts without reheating, a uniform distribution of the feed-water heating among individual heaters is assumed. The economy of thermal layouts depends also on reheater design, drainage scheme, and on steam pressure loss in the extraction piping leading to the reheaters.

S.A.P.

Card 2/2

8(6)

SOV/112-59-5-8556

Translation from: Referativnyy zhurnal. Elektrotehnika, 1959, Nr 5, p 23 (USSR)

AUTHOR: Shapiro, Yu. V., and Tortiko, M. A.

TITLE: Modernization of SVK-150-1 and VK-100-2 Turbines

PERIODICAL: Tr. Leningr. metallich. z-da, 1957, Nr 5, pp 79-89

ABSTRACT: In modernizing the high-pressure casing of the SVK-150-1 turbine, the number of stages in that casing was brought from 8 to 9, and aerodynamically better shapes of the control-stage and pressure-stage blades were employed. Reactions and  $u/C_0$  in the stages were increased and axial clearances in the high-pressure casing were reduced. These measures raised the efficiency of the high-pressure casing by 2%. The construction of end packing in the high-pressure casing and of front packing in the medium-pressure casing was changed; the packing teeth are machined directly on the shaft, to avoid loosening of bushings with time. New blade shapes for the control stage and smaller overlaps were used in the VK-100-2 turbines. The

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Modernization of SVK-150-1 and VK-100-2 Turbines

SOV/112-59-5-8556

exit angle was reduced as was the width of the stator blades (down to 50 mm) in the pressure stages of the high-pressure casing. In the 2-7 stages, the reaction was increased (the diameter of the front packing was brought from 550 to 585 mm). Packing is used in all pressure stages of the high-pressure casing. In the 8-12 stages, blades having a variable inlet angle are used; they are designed on the basis of  $C_{ur} = \text{const}$  and  $C_z = \text{const}$ . All these measures raised the efficiency of the high-pressure casing by 4%.

I.N.G.

Card 2/2

SHAPIRO, Yu.V.

Three-ton capacity charging machine. Sbor. Novo-Kram. mashino-  
stroi. zav. no.3:97-103 '59. (MIRA 17:1)

L 65123-65 EWP(e)/EPA(u)-2/ENT(m)/EPF(c)/EMP(i)/EMP(v)/EPA(w)-2/EMP(j)/  
T/EMP(b)/ETC(m) WW/RM/WH

ACCESSION NR: AP5021589

UR/0286/65/000/013/0059/0059

AUTHORS: Romashchenko, V. A.; Kovalenko, P. M.; Shapiro, Yu. V.

TITLE: Apparatus for cementing pyroceram panels. Class 32, No. 172459

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 13, 1965, 59

TOPIC TAGS: pyroceram, glass, oil

ABSTRACT: This Author Certificate presents an apparatus for cementing pyroceram panels into several layers. The apparatus contains a lifting and lowering table and a limiting stop. To make sure that the ends of the cemented panel lie in a common plane and to support the panels at the time of their cementing, traverses are mounted above the lifting-lowering table (see Fig. 1 on the Enclosure). Longitudinal straps fixed at the ends of these traverses carry spring-loaded clamps and force-transmitting cylinders. Orig. art. has: 1 figure.

ASSOCIATION: Nauchno-issledovatel'skiy i proyektno-tekhnologicheskii institut mashinostroyeniya (Scientific-Research Design-Engineering Institute of Machine Construction)

SUBMITTED: 09 May 64

ENCL: 01

SUB CODE: IE

NO REF SOV: 000

OTHER: 000

Card 1/2

L 65123-65

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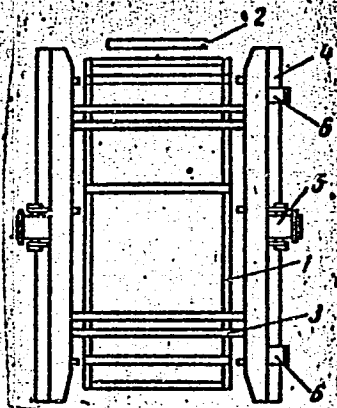


Fig. 1.

1- lifting-lowering table; 2- limiting stop; 3- traverses;  
4- straps; 5- clamps with pawls; 6- force-transmitting  
cylinders

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Cord 2/2

PAPKOVICH, Yu.Ya., kand. med. nauk; SHAPIRO, Yu.V.

Clinical aspects and treatment in pachycarpine poisoning. Sov. med.  
27 no.11:126-130 N '64. (MIRA 18:7)

1. Gorodskaya klinicheskaya bol'nitsa No.29 imeni Bauman (glavnyy  
khirurg - kand. med. nauk L.M.Shnaper), Moskva.

SHAPIRO, Z.

Organization of individual work on methods. Prof.-tekh. obr. 20  
no.4:15-16 Ap '63. (MIRA 16:5)

1. Zamestitel' direktora tekhnicheskogo uchilishcha No.10,  
Tatarskaya ASSR.

(Vocational education)

SHAPIRO, Z.A.

Cure of agranulocytosis by transfusion of blood of patients with chronic myelosis. Klin.med., Moskva no.4:91 Ap '50. (CLML 19:3)

1. Of the Hematological Hospital of the Dnepropetrovsk Oblast Station for Blood Transfusion (Director -- S.Ye.Lyuboshits), Dnepropetrovsk.

USSR/General Problems of Pathology - Tumors. Experimental  
Therapy.

U.

Abs Jour : Ref Zhur - Biol., No 2, 1959, 8816

Author : Shapiro, Z.A.

Inst : City Health Department, Dnepropetrovsk

Title : Embiquine Therapy of Polycythemia Vera

Orig Pub : Sb. nauchn. rabot. Dnepropetr. gor. std. zdравookhr.,  
10-ya gor. bol'nitsa. Dnepropetrovsk, 1957, 25-36

Abstract : Patients with polycythemia were treated with embiquine  
and novembiquine. Treatment was begun with an I.V.  
injection of 3 mg of the preparation a day, adding 1 mg  
to each subsequent infusion until 5-6 mg was reached.  
Embiquine produced side-effects (nausea, vomiting) for  
the prevention of which the patients received amytal;  
novembiquine gave practically no side reactions.

Card 1/2



USSR / General Problems of Pathology. Tumors. Human U  
Neoplasms.

Abs Jour: Ref Zhur-Biol., No 11, 1958, 51792.

Author : ~~Shapiro, Z.~~  
Inst : Dnepropetrovsk City Health Dept. 10<sup>th</sup> City Hos-  
pital.  
Title : On Chloroleukosis.

Orig Pub: Sb. nauchn. rabot. Dnepropetrov. gor. otd. zdrav-  
ookhr. 10-ya goa bolnitsa. Dnepropetrovsk, 1957,  
44-50.

Abstract: Six cases of chloroleukosis in children, aged 1  
year 2 months to 12 years, and in 2 adults, aged  
37 and 52 years, are reported. It is the opinion  
of the author that the diversity of the clinical  
picture up to complete absence of neoplastic growth

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SHAPISO, S.A. (Dnepropetrovsk)

Acute leucosis combined with pregnancy. Vrach.delo no.9:985 S '57.  
(PREGNANCY, COMPLICATIONS OF) (MLRA 10:9)  
(LEUCOSIS)

SHAPIRO, Z.A.

Relation of acute and chronic leukemias. Probl. gemat. i perel.  
krovi 3 no.6:23-29 N-D '58. (MIRA 12:7)

1. Iz Dnepropetrovskoy 10-y gorodskoy bol'nitsy (glavnyy vrach  
D. G. Dolgova).  
(LEUKEMIA)

SHAPIRO, Z.A.; TIMOSHKINA, L.F.

Prolonged remission in subacute myeloid leukemia achieved by the consecutive administration of 6-mercaptopurine and myleran. *Pediatrics*, Moskva 36 no.8:65-67 Ag '58. (MIRA 12:1)

1. Iz 10-y Dnepropetrovskoy gorodskoy bol'nitsy (glavnyy vrach. D.G. Dolgova).

(LEUKEMIA, MYELOCYTIC, therapy, .

busulfan & 6 mercaptopurine, prolonged remission (Rus))

(BUSULFAN, ther. use,

leukemia, myelocytic, with 6-mercaptopurine, prolonged remission (Rus))

(MERCAPTOPURINE, ther. use,

leukemia, myelocytic, with busulfan, prolonged remission (Rus ))